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EXAMINER

RAJ, RAJIV J

ART UNIT

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/743,443	Applicant(s) BARRERA, JOSE LUIS MOCTEZUMA DE LA	
	Examiner RAJIV J. RAJ	Art Unit 4143	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 December 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-16 and 18-30 is/are rejected.
- 7) ☒ Claim(s) 2 and 17 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>23 June 2004</u> . | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

Status of Claims

1. This action is in reply to the application filed on 11 March 2003.
2. Claims 1-26 are currently pending and have been examined.

Information Disclosure Statement

3. The Information Disclosure Statement filed 23 June 2004 has been considered. An initialed copy of the Form 1449 is enclosed herewith.

Claim Objections

4. Claims 2 and 17 objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.

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4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
7. Claims 1, 2-16, and 18-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Van Der Brug (US 5954648) (hereinafter Van Der Brug) in view of Malackowski et al. (US 2003/0093103 A1) (hereinafter Malackowski).

Claim 1

Van Der Brug as shown, discloses the following limitations:

- *identifying a context within the procedure;* and
- *identifying a component usable in the procedure;* (see at least Van Der Brug Column:1 Lines:23-28 “The position detection system of the known image guided surgery system comprises two cameras which pick-up images of the surgical instrument from different directions. The image guided surgery system includes a data processor for deriving the position in space of the surgical instrument from image signals from both cameras.”)

Van Der Brug does not disclose the following limitations, however Malackowski, as shown, does:

- *determining the consequent step within the procedure based on the identity of the component and the context.* ([see at least Malackowski [0087] “The control console 28, based on the data read from chip 64, configures the system so it will operate in an appropriate manner given the specific characteristics of the specific attached cutting accessory”)

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the *identifying a context within the procedure* and *identifying a component usable in the procedure*, as taught in Van Der Brug, with the *determining the consequent step within the procedure based on the identity of the component and the context*, as taught in Malackowski, because this would more accurately showing a surgeon the position of a surgical instrument in a patient being operated on (see at least Van De Berg Column:1 Lines:38-41).

Claim 3

The combination of Van Der Brug/Malackowski discloses all the limitations of Claim 1.

Van Der Brug further discloses the following limitation:

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- *identifying a particular location and wherein the determining step is based on the location, the identity of the component, and the context.* (see at least Van De Berg Column: 3, line 57 to column 4, line 6 “The image guided surgery system comprises a position detection system which includes a camera unit 1 with one or more cameras 10 and a data processor 2” “The data processor 2 includes a computer 21 which, on the basis of the image signals, computes the position of the surgical instrument relative to the patient 12 who is undergoing a surgical operation”)

Claim 4

The combination of Van Der Brug/Malackowski discloses all the limitations of Claim 1. Van Der Brug further discloses the following limitation:

- *displaying a representation related to the consequent step on a display unit.* (see at least Van De Berg Figure Items:4,5,8 as well as related text)

Claim 5

The combination of Van Der Brug/Malackowski discloses all the limitations of Claim 1. Van Der Brug further discloses the following limitation:

- *the component is a multipart component capable of self identifying the component's composite parts* (see at least Van De Berg Figure Items:1,3,10 as well as related text)

Claim 6

The combination of Van Der Brug/Malackowski discloses all the limitations of Claim 5. Van Der Brug further discloses the following limitation:

- *the multipart component is a tool with an attached device wherein the tool can identify the attached device* (see at least Van De Berg Figure Items:1,3,10)

Claim 7

The combination of Van Der Brug/Malackowski discloses all the limitations of Claim 1. Van Der Brug further discloses the following limitation:

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- *the multipart component is a tool with an attached device wherein the attached device separately identifiable* (see at least Van De Berg Figure Items:1,3,10)

Claim 8

The combination of Van Der Brug/Malackowski discloses all the limitations of Claim 3.

Van Der Brug further discloses the following limitation:

- *the identification of a particular location is done using a navigation system.* (see at least Van De Berg Column:1 Lines:52-58 “a position detection system that can be accurately directed to the operating region. . .” “This object is achieved by an image guided surgery system according to the invention which is characterized in that the position detection system is provided with an indicator system for marking a region for which the position detection system is sensitive”)

Claim 9

The combination of Van Der Brug/Malackowski discloses all the limitations of Claim 1.

Malackowski further discloses the following limitation:

- *configuring the consequent step with a parameter of the component.* (see at least Malackowski [0077] “if the data indicates that the use of the cutting accessory was relatively recent, within, for example, 24 hours, controller 70 interprets this data as indicating that the use was in association with the current surgical procedure. Controller 70 interprets either of these two states as being ones in which use of the cutting accessory can continue normally.”)

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the limitations of Claim 1, as taught in Van Der Brug/Malackowski, with *configuring the consequent step with a parameter of the component*, as taught in Malackowski, because this would more accurately show a surgeon the position of a surgical instrument in a patient being operated on. (see at least Van De Berg Column:1 Lines:38-41).

Claim 10

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The combination of Van Der Brug/Malackowski discloses all the limitations of Claim 1.

Malackowski further discloses the following limitation:

- *the consequent step is a warning that the component is inappropriate for the context.* (see at least Malackowski [0078] “controller 70 reexecutes steps 123, 126 and 128, and, if necessary, step, 124, before reexecuting step continued operation step 128. When continuing operation step 128 is reexecuted, the system 20 has been reconfigured to actuate the handpiece in accordance with the characteristics of the newly attached cutting accessory 24”)

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the limitations of Claim 1, as taught in Van Der Brug/Malackowski, with *the consequent step is a warning that the component is inappropriate for the context*, as taught in Malackowski, because this would more accurately show a surgeon the position of a surgical instrument in a patient being operated on. (see at least Van De Berg Column:1 Lines:38-41).

Claim 11

The combination of Van Der Brug/Malackowski discloses all the limitations of Claim 1.

Van Der Brug further discloses the following limitation:

- *the consequent step includes controlling a piece of auxiliary apparatus.* (see at least Van De Berg Column:4 Lines:44-46 “the surgeon 7 who handles the surgical instrument 11 can see the actual position of the surgical instrument 11 in the operating region on the display device 5”)

Claim 12

The combination of Van Der Brug/Malackowski discloses all the limitations of Claim 1.

Malackowski further discloses the following limitations:

- *identifying an additional component and* (see at least Malackowski [0165] “the control console that reads the accessory and implant identify data may be attached to a local area network to which other equipment both in the operating room and elsewhere in the medical facility are attached.”)

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- *wherein the determination of the consequent step is based on the identity of the component, the identity of the additional component, and the context.* (see at least Malackowski [0087] “The control console 28, based on the data read from chip 64, configures the system so it will operate in an appropriate manner given the specific characteristics of the specific attached cutting accessory”)

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the limitations of Claim 1, as taught in Van Der Brug/Malackowski, *identifying an additional component and the determination of the consequent step is based on the identity of the component, the identity of the additional component, and the context*, as taught in Malackowski, because this would more accurately show a surgeon the position of a surgical instrument in a patient being operated on. (see at least Van De Berg Column:1 Lines:38-41).

Claim 13

The combination of Van Der Brug/Malackowski discloses all the limitations of Claim 1.

Van Der Brug further discloses the following limitation:

- *the additional step of moving to the determined consequent step.* (see at least Van De Berg Column:2 Lines:55-57 “The indicator system is arranged to detect a light source that is placed in the operating region in which the surgical instrument is going to be moved.”)

Claim 14

The combination of Van Der Brug/Malackowski discloses all the limitations of Claim 1.

Van Der Brug further discloses the following limitation:

- *the procedure is a surgical procedure.* (see at least Van De Berg Column:1 Lines:26-30 “The image guided surgery system includes a data processor for deriving the position in space of the surgical instrument from image signals from both cameras. During the operation images that had been collected earlier are being shown to the surgeon.”)

Claim 15

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The combination of Van Der Brug/Malackowski discloses all the limitations of Claim 1. Malackowski further discloses the following limitations:

- *a database of user preferences and* (see at least Malackowski [0072] “[0072] The system 20 of this invention is initially configured for operation by connecting the handpiece 22 to the control console 28. Controller 70 reads the data in the handpiece NOVRAM 32, stores these data in memory 69 and initially configures the system 20 to operate based on the data contained in the NOVRAM.)
- *wherein the determining step is based on the database, the identity of the component, and the context.* (see at least Malackowski [0087] “The control console 28, based on the data read from chip 64, configures the system so it will operate in an appropriate manner given the specific characteristics of the specific attached cutting accessory”)

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the limitations of Claim 1, as taught in Van Der Brug/Malackowski, with *a database of user preferences and the determining step is based on the database, the identity of the component, and the context*, as taught in Malackowski, because this would more accurately show a surgeon the position of a surgical instrument in a patient being operated on. (see at least Van De Berg Column:1 Lines:38-41).

Claim 16

Van Der Brug as shown, discloses the following limitations:

- *a first circuit that identifies a context within the procedure; a second circuit that identifies a component usable in the procedure;* (see at least Van Der Brug Column:1 Lines:23-28 “The position detection system of the known image guided surgery system comprises two cameras which pick-up images of the surgical instrument from different directions. The image guided surgery system includes a data processor for deriving the position in space of the surgical instrument from image signals from both cameras.”)

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Van Der Brug does not disclose the following limitations, however Malackowski, as shown, does:

- *a third circuit that determines the consequent step within the procedure based on the identity of the component and the context.* ([see at least Malackowski [0087] “The control console 28, based on the data read from chip 64, configures the system so it will operate in an appropriate manner given the specific characteristics of the specific attached cutting accessory”])

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the *identifying a context within the procedure* and *identifying a component usable in the procedure*, as taught in Van Der Brug, with the *determining the consequent step within the procedure based on the identity of the component and the context*, as taught in Malackowski, because this would more accurately show a surgeon the position of a surgical instrument in a patient being operated on. (see at least Van De Berg Column:1 Lines:38-41).

Claim 18

The combination of Van Der Brug/Malackowski discloses all the limitations of Claim 16.

Van Der Brug further discloses the following limitation:

- *a fourth circuit to identify a particular location and wherein the third circuit determines the consequent step based on the location, the identity of the component, and the context.* (see at least Van De Berg Column:3&4 Lines:57-60 & 2-6 “The image guided surgery system comprises a position detection system which includes a camera unit 1 with one or more cameras 10 and a data processor 2” “The data processor 2 includes a computer 21 which, on the basis of the image signals, computes the position of the surgical instrument relative to the patient 12 who is undergoing a surgical operation”)

Claim 19

The combination of Van Der Brug/Malackowski discloses all the limitations of Claim 16.

Van Der Brug further discloses the following limitation:

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- *a display unit that displays a representation related to the consequent step (see at least Van De Berg Figure Items:4,5,8)*

Claim 20

The combination of Van Der Brug/Malackowski discloses all the limitations of Claim 16.

Van Der Brug further discloses the following limitation:

- *the component is a multipart component capable of self identifying the component's composite parts (see at least Van De Berg Figure Items:1,3,10)*

Claim 21

The combination of Van Der Brug/Malackowski discloses all the limitations of Claim 20.

Van Der Brug further discloses the following limitation:

- *the multipart component is a tool with an attached device wherein the tool can identify the attached device (see at least Van De Berg Figure Items:1,3,10)*

Claim 22

The combination of Van Der Brug/Malackowski discloses all the limitations of Claim 20.

Van Der Brug further discloses the following limitation:

- *the multipart component is a tool with an attached device wherein the attached device separately identifiable (see at least Van De Berg Figure Items:1,3,10)*

Claim 23

The combination of Van Der Brug/Malackowski discloses all the limitations of Claim 18.

Van Der Brug further discloses the following limitation:

- *the fourth circuit is incorporated within a navigation system. (see at least Van De Berg Column:1 Lines:52-58 "a position detection system that can be accurately directed to the operating region. . ." "This object is achieved by an image guided surgery system according to the invention which is characterized in that the position detection system is provided with an indicator system for marking a region for which the position detection system is sensitive")*

Claim 24

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The combination of Van Der Brug/Malackowski discloses all the limitations of Claim 16.

Malackowski further discloses the following limitation:

- *a fifth circuit to configure the consequent step with a parameter of the component.* (see at least Malackowski [0077] “if the data indicates that the use of the cutting accessory was relatively recent, within, for example, 24 hours, controller 70 interprets this data as indicating that the use was in association with the current surgical procedure. Controller 70 interprets either of these two states as being ones in which use of the cutting accessory can continue normally.”)

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the limitations of Claim 16, as taught in Van Der Brug/Malackowski, with *a fifth circuit to configure the consequent step with a parameter of the component*, as taught in Malackowski, because this would more accurately show a surgeon the position of a surgical instrument in a patient being operated on. (see at least Van De Berg Column:1 Lines:38-41).

Claim 25

The combination of Van Der Brug/Malackowski discloses all the limitations of Claim 16

Malackowski further discloses the following limitation:

- *the consequent step is a warning that the component is inappropriate for the context.* (see at least Malackowski [0078] “controller 70 reexecutes steps 123, 126 and 128, and, if necessary, step, 124, before reexecuting step continued operation step 128. When continuing operation step 128 is reexecuted, the system 20 has been reconfigured to actuate the handpiece in accordance with the characteristics of the newly attached cutting accessory 24”)

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the limitations of Claim 1, as taught in Van Der Brug/Malackowski, with *the consequent step is a warning that the component is inappropriate for the context*, as taught in Malackowski, because this would more accurately show a surgeon the position of a surgical instrument in a patient being operated on. (see at least Van De Berg Column:1 Lines:38-41).

Claim 26

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The combination of Van Der Brug/Malackowski discloses all the limitations of Claim 16.

Van Der Brug further discloses the following limitation:

- *the consequent step includes controlling a piece of auxiliary apparatus.* (see at least Van De Berg Column:4 Lines:44-46 “the surgeon 7 who handles the surgical instrument 11 can see the actual position of the surgical instrument 11 in the operating region on the display device 5”)

Claim 27

The combination of Van Der Brug/Malackowski discloses all the limitations of Claim 16

Malackowski further discloses the following limitations:

- *a sixth circuit to identify an additional component and* (see at least Malackowski [0165] “the control console that reads the accessory and implant identify data may be attached to a local area network to which other equipment both in the operating room and elsewhere in the medical facility are attached.”)
- *wherein the third circuit determines the consequent step based on the identity of the component, the identity of the additional component, and the context.* (see at least Malackowski [0087] “The control console 28, based on the data read from chip 64, configures the system so it will operate in an appropriate manner given the specific characteristics of the specific attached cutting accessory”)

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the limitations of Claim 1, as taught in Van Der Brug/Malackowski, *a sixth circuit to identify an additional component* and *wherein the third circuit determines the consequent step based on the identity of the component, the identity of the additional component, and the context*, as taught in Malackowski, because this would more accurately show a surgeon the position of a surgical instrument in a patient being operated on. (see at least Van De Berg Column:1 Lines:38-41).

Claim 28

The combination of Van Der Brug/Malackowski discloses all the limitations of Claim 16.

Van Der Brug further discloses the following limitation:

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- *includes a sixth circuit to move to the determined consequent step.* (see at least Van De Berg Column:2 Lines:55-57 “The indicator system is arranged to detect a light source that is placed in the operating region in which the surgical instrument is going to be moved.”)

Claim 29

The combination of Van Der Brug/Malackowski discloses all the limitations of Claim 16.

Van Der Brug further discloses the following limitation:

- *the procedure is a surgical procedure.* (see at least Van De Berg Column:1 Lines:26-30 “The image guided surgery system includes a data processor for deriving the position in space of the surgical instrument from image signals from both cameras. During the operation images that had been collected earlier are being shown to the surgeon.”)

Claim 30

The combination of Van Der Brug/Malackowski discloses all the limitations of Claim 16.

Malackowski further discloses the following limitations:

- *a database of user preferences and* (see at least Malackowski [0072] “[0072] The system 20 of this invention is initially configured for operation by connecting the handpiece 22 to the control console 28. Controller 70 reads the data in the handpiece NOVRAM 32, stores these data in memory 69 and initially configures the system 20 to operate based on the data contained in the NOVRAM.)
- *wherein the third circuit determines the consequent step based on the database, the identity of the component, and the context.* (see at least Malackowski [0087] “The control console 28, based on the data read from chip 64, configures the system so it will operate in an appropriate manner given the specific characteristics of the specific attached cutting accessory”)

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the limitations of Claim 16, as taught in Van Der Brug/Malackowski, with *a database of user*

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preferences and the third circuit determines the consequent step based on the database, the identity of the component, and the context, as taught in Malackowski, because this would more accurately show a surgeon the position of a surgical instrument in a patient being operated on. (see at least Van De Berg Column:1 Lines:38-41).

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Conclusion

Any inquiry of a general nature or relating to the status of this application or concerning this communication or earlier communications from the Examiner should be directed to **Rajiv J. Raj** whose telephone number is **571-270-3930**. The Examiner can normally be reached on Monday-Friday, 7:30am-5:00pm. If attempts to reach the examiner by telephone are unsuccessful, the Examiner's supervisor, **James A. Reagan** can be reached at **571.272.6710**.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://portal.uspto.gov/external/portal/pair> <<http://pair-direct.uspto.gov>>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at **866.217.9197** (toll-free).

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Date: 02/11/08

/Rajiv J Raj/ Patent Examiner Art Unit 4143

/James A. Reagan/Supervisory Patent Examiner, Art Unit 4143